

CLAIMS

1. A power tool comprising:-
 - a housing;
 - a motor within the housing for actuating a working member of the tool, the motor having a stator and a rotor adapted to rotate about a first axis relative to said stator; and
 - 5 first vibration attenuating means for attenuating vibrations transmitted from said stator to said housing at least in a direction substantially parallel to said first axis.
2. A tool according to claim 1, wherein the stator is displaceable relative to said 10 housing in a direction substantially parallel to said first axis, and the first vibration attenuating means comprises biasing means for resisting said displacement of said stator relative to the housing at least in a direction substantially parallel to said first axis.
- 15 3. A tool according to claim 2, wherein said biasing means comprises at least one resilient member.
4. A tool according to claim 3, wherein said biasing means comprises a plurality of 20 first said resilient members circumferentially spaced around said first axis and a plurality of second said resilient members offset from said first resilient members in a direction parallel to said first axis.
5. A tool according to claim 4, wherein said first resilient members are circumferentially offset relative to said second resilient members.
- 25 6. A tool according to any one of claims 3 to 5, wherein at least one said resilient member comprises at least one respective leaf spring.
7. A tool according to any one of claims 3 to 6, wherein the resilience of at least 30 one said resilient member is adjustable.

8. A tool according to claims 6 and 7, wherein at least one said leaf spring comprises a plurality of removable spring members.
9. A tool according to any one of claims 3 to 6, wherein the first vibration attenuating means comprises a plurality of interchangeable said resilient members having different resiliencies.
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10. A tool according to any one of claims 3 to 9, wherein a plurality of said resilient members are connected between said stator and at least one support.
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11. A tool according to any one of the preceding claims, further comprising resilient second vibration attenuating means for attenuating vibrations along three orthogonal axes transmitted from a working member of said tool to said housing.
15. 12. A tool according to claims 10 and 11, wherein said second vibration attenuating means act between at least one said support and said housing.
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13. A tool according to claim 11 or 12, further comprising a gearbox connected to said motor, wherein said second vibration attenuating means acts between said gearbox and said housing.
14. A tool according to any one of claims 11 to 13, wherein said second vibration attenuating means comprises a plurality of further resilient members.
25. 15. A tool according to claim 14, wherein at least one first said further resilient member is connected between a bearing of said rotor and said housing.
16. A tool according to claims 14 or 15, comprising a plurality of said first further resilient members and a plurality of said second further resilient members, wherein
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- said first and second further resilient members are circumferentially spaced about said first axis, and said first further resilient members are circumferentially offset relative to a said second further resilient members.

17. A tool according to claim 16, wherein said first and second further resilient members are arranged substantially perpendicularly to said first axis.
18. A tool according to claim 16 or 17, further comprising at least one third further resilient member arranged substantially parallel to said first axis.
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19. A tool according to any one of claims 16 to 18, wherein at least one said further resilient member has adjustable resilience.
- 10 20. A tool according to claim 19, wherein at least one said further resilient member comprises a respective spring acting against a respective abutment having adjustable position.
- 15 21. A power tool substantially as hereinbefore described with reference to the accompanying drawings.